

RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 04-0278845

THE APPLICATION OF EOG RESOURCES, INC. TO CONSIDER A NEW FIELD DESIGNATION AND TO ADOPT TEMPORARY FIELD RULES FOR THE PROPOSED MIDWAY, EAST (FRIO CONS.) FIELD, SAN PATRICIO COUNTY, TEXAS

HEARD BY:

Richard D. Atkins, P.E. - Technical Examiner

Marshall F. Enquist - Legal Examiner

HEARING DATE:

November 27, 2012

APPEARANCES:

REPRESENTING:

APPLICANT:

Doug J. Dashiell Nathan Hollek

EOG Resources, Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

EOG Resources, Inc. ("EOG") requests that a new field designation called the Midway, East (Frio Cons.) Field (ID No. 61155 195) be approved for the Elick Lease, Well No. 2. EOG proposes that the following Temporary Field Rules be adopted for the new field, subject to review in 24 months:

- 1. Designation of the field as the correlative interval from 10,541 feet to 11,974 feet as shown on the log of the EOG Resources, Inc. - Elick Lease, Well No. 2 (API No. 42-409-32979);
- 2. 467'-0' leaseline spacing with special provisions for "take points" and "offlease" penetration point for horizontal drainhole wells;
- 3. 40 acre gas units;
- Allocation based on 95% deliverability and 5% per well with AOF status. 4.

The application is unprotested and the examiners recommend approval of the new field designation for the Elick Lease, Well No. 2, and adoption of Temporary Field Rules for the Midway, East (Frio Cons.) Field, as proposed by EOG.

DISCUSSION OF THE EVIDENCE

EOG completed its Elick Lease, Well No. 2, in September 2012 with perforations from 10,986 feet to 11,396 feet. On initial test, the well produced flowing at a maximum rate of 6.8 MMCFGPD, 203 BOPD and 1 BWPD. Cumulative production from the well through October 2012 is 97.0 MMCFG and 3.2 MBO.

A new field designation should be approved for the Elick Lease, Well No. 2, as there is no comparable production within a 2.5 mile radius of the discovery well. EOG requests that the field be defined as the correlative interval from 10,541 feet to 11,974 feet as shown on the log of the EOG Resources, Inc. - Elick Lease, Well No. 2 (API No. 42-409-32979), J Crouch Survey, A-87, San Patricio County, Texas. The interval includes the Mayo through the Lower Bren sand formations. The field was discovered in a new fault block from a 3-D seismic survey and had an original bottomhole pressure of 7,653 psi, which is similar to the original bottomhole pressures found in other nearby fields at this depth.

The Midway, East (Frio Cons.) Field is a retrograde condensate reservoir that has pressure depletion as the primary drive mechanism. The Frio section comprises over 1,400 feet of interbedded sandstones and shales. This interval includes numerous Frio Sands in which separate completions would not be economically feasible. As a result of commingling the various Frio Sands, EOG believes that additional gas will be recovered based on a lower combined economic limit.

EOG is proposing to drill additional vertical and horizontal drainhole wells and requests Field Rules to promote the efficient and effective development of the remaining hydrocarbons. EOG requests a spacing rule that requires 467' leaseline and no between well spacing with special provisions for "take points" and "off-lease" penetration point for horizontal drainhole wells. EOG argues that the proposed spacing is necessary to allow drilling of horizontal wells which may have to be placed very near each other in order to develop the individual Frio Sands. EOG also requests that the field remain on 40 acre density, as provided by Statewide Rules. EOG submitted a tabulation of four other fields in the area that had adopted similar Field Rules.

EOG requests that a field rule be adopted which includes language relevant to the measurement of distances to lease lines for horizontal drainhole wells. EOG's proposed rule specifies that, for purposes of leaseline spacing, the nearest "take point" in a horizontal well be used. This take-point could be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased well.

In some cases, it is beneficial to penetrate the reservoir off lease, while still having "take points" no closer to lease lines than allowed under the field rules. EOG requests that Field Rules for the subject field provide for an "off-lease" penetration point. Statewide Rule 86 requires that the penetration point of a horizontal drainhole be on the lease. In this field, a well generally requires approximately 600 feet of horizontal displacement to make the 90 degree turn from vertical to horizontal. If the penetration point is required to be on the lease, then the first point of production would be about 600 feet from the lease line. The proposed rule will allow approximately 200 feet of additional producing drainhole, resulting in the recovery of additional oil and gas reserves. The Commission has adopted similar rules allowing offsite penetration points in other fields, after the operator has given notice to the mineral owners of the off-lease tract on which the penetration point is to be located and received no protest. For purposes of the assignment of additional acreage pursuant to Statewide Rule 86, it is proposed that the distance between the first and last take-point in a horizontal drainhole well be used.

To satisfy state statutes, EOG requests that a two factor allocation formula based on 95% deliverability and 5% per well be adopted for the field. EOG also requests that the allocation formula be suspended, as there is a 100% market demand for all of the gas produced from the field.

FINDINGS OF FACT

- 1. Notice of this application and hearing was provided to all persons entitled to notice at least ten (10) days prior to the date of the hearing.
- EOG Resources, Inc. ("EOG") completed its Elick Lease, Well No. 2, in September 2012 with perforations from 10,986 feet to 11,396 feet. On initial test, the well produced flowing at a maximum rate of 6.8 MMCFGPD, 203 BOPD and 1 BWPD.
- 3. The Elick Lease, Well No. 2, is entitled to a new field designation, as there is no comparable production within a 2.5 mile radius of the discovery well.
 - a. The field was discovered in a new fault block from a 3-D seismic survey.
 - b. The field had an original bottomhole pressure of 7,653 psi, which is similar to the original bottomhole pressures found in other nearby fields at this depth.
- The Midway, East (Frio Cons.) Field should be defined as the correlative interval from 10,541 feet to 11,974 feet as shown on the log of the EOG Resources, Inc. - Elick Lease, Well No. 2 (API No. 42-409-32979), J Crouch

Survey, A-87, San Patricio County, Texas. The interval includes the Mayo through the Lower Bren sand formations.

- 5. The Midway, East (Frio Cons.) Field is actively being developed with vertical and horizontal drainhole wells.
- 6. Field Rules providing for 467' leaseline and no between well spacing with special provisions for "take points" and "off-lease" penetration point for horizontal drainhole wells will provide consistency in developing the field and will allow greater flexibility in selecting future drilling locations.
- 7. A spacing rule which utilizes "take-points" in a horizontal well for determination of distances to lease lines will prevent waste and will not harm correlative rights.
 - a. A take-point in a horizontal well in this field may be a perforation in a horizontal well that is cased and cemented, an external casing packer in a cased well, or any open-hole section in an uncased portion of the wellbore.
 - b. Adoption of the proposed rule will allow the horizontal drainhole length on a lease to be maximized.
 - c. For purposes of assignment of additional acreage pursuant to Statewide Rule 86, the distance between the first and last take-point in a horizontal well should be used.
- 8. Allowing an "off-lease" penetration point will result in maximum producing drainhole length, thereby increasing ultimate recovery from horizontal drainhole wells. To protect correlative rights, prior notice and opportunity to object should be given to the mineral owners of "off-lease" surface locations.
- 9. Similar Field Rules have been adopted in four other fields in the area.
- 10. Allocation based on 95% deliverability and 5% per well is a reasonable formula which will satisfy state statutes and protect correlative rights of mineral owners in the field.
- 11. Suspension of the allocation formula is appropriate, as there is a 100% market demand for all of the gas produced from the field.

CONCLUSIONS OF LAW

1. Proper notice of this hearing was issued.

- 2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
- 3. Approval of the requested new field designation and adoption of Field Rules for the Midway, East (Frio Cons.) Field will prevent waste, protect correlative rights and promote the orderly development of the field.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend that the Commission approve the new field designation and adopt Field Rules, subject to review in 24 months, for the proposed Midway, East (Frio Cons.) Field, as requested by EOG Resources, Inc.

Respectfully submitted,

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Technical Examiner

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